

The Blackboard Point of Sale (POS) Reader PR5000 is an Android-based reader. When configured, the PR5000 communicates with the Blackboard Transaction System (BbTS), and incorporates both contactless and magnetic stripe reader capabilities. The reader can be set up as either an attended or unattended device.

Features:

- Bluetooth Classic and BLE compatible.
- Large LCD capacitive touchscreen.
- Adjustable screen backlight.
- LEDs at the bottom of the unit for illumination.
- Manual screen rotation (180°).
- Wireless communication to the host.
- A real time clock.

LED options:

- a - Device Idle
- b - Valid Transaction
- c - Invalid Transaction

The LED options are configurable. When enabled, the color and brightness are adjustable.

- Configurable Valid/Invalid Tones.
- Stereo speakers (2).
- The PR5000 supports: Sony Felica, MIFARE Classic, MIFARE DESFire EV1 & EV2, and Blackboard Mobile Credentials (Android only). The following is the list of features that are included, but will not be operational for the first phase. Look for future releases that enable these features.
- Ambient Light Sensor - The display dims and brightens based on ambient light in the device location.
- Camera - Captures an image with each transaction. This enables the ability to view an image with a transaction for situations such as investigating fraud claims, to determine cause of damage to the device, etc.

Antenna Details:

Bluetooth Classic/BLE - Cypress CYBLE-222014-01 BLE 4.2 module with onboard ceramic chip antenna.

Chip Antenna Manufacturer	Johanson Technology Inc.
Chip Antenna Part Number	2450AT18B100
Frequency Range	2400 – 2500 MHz
Peak Gain	0.5 dBi typical
Average Gain	-0.5 dBi typical
Return Loss	9.5 dB minimum

NFC - The NXP CLRC66303H NFC front-end is connected to a 60mmx75mm custom flex PCB antenna mounted behind the LCD display.

Blackboard part number: 044-039-201

802.11b/g/n - The Murata LBEE5KL1DX-883 wireless LAN module uses a Taoglas FXP830.07.0100C 2.4/5 GHz dual-band dipole patch antenna. The FXP.830 has a peak gain of 1.8dBi at 2.4GHz and efficiencies of 50%, and 3-4dBi and 80-90% along bands 4.9GHz to 6GHz.